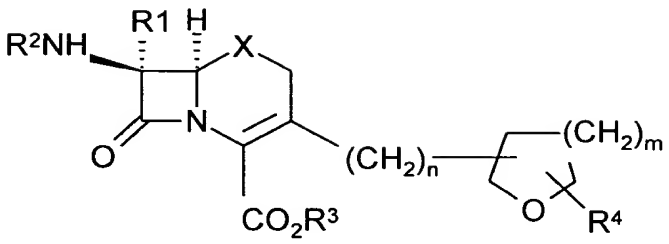


(I)

wherein R^1 is hydrogen, methoxy or formamido;

R^2 is an acyl group;

CO_2R^3 is a carboxy group or a carboxylate anion, or R^3 is a readily removable carboxy protecting group;

R^4 represents hydrogen or up to four substituents selected from alkyl, alkenyl, alkynyl, alkoxy, hydroxy, halogen, amino, alkylamino, acylamino, dialkylamino, CO_2R, $CONR_2$, SO_2NR_2 (where R is hydrogen or C_{1-6} alkyl) and aryl [and heterocyclyl], which may be the same or different and wherein any R^4 alkyl substituent is optionally substituted by any other R^4 substituent;

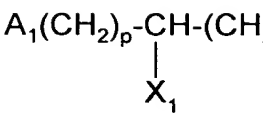
X is S, SO, SO_2, O or CH_2;

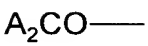
m is 1 or 2;

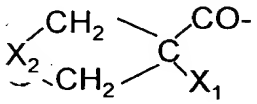
n is 0;

"acyl" is selected from the group consisting of formula (a) to (f):

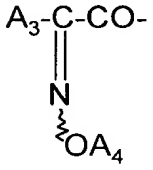
T1450X C1

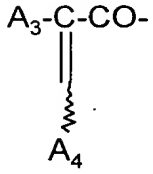

(a)


(b)


(c)

(d)


(e)


(f)

wherein p is 0, 1 or 2;

m is 0, 1 or 2;

A_1 is (C_{1-6})alkyl, substituted (C_{1-6})alkyl, (C_{3-6})cycloalkyl, cyclohexenyl, cyclohexadienyl, or an aromatic [or heteroaromatic] group;

X_1 is a hydrogen or halogen atom, a carboxylic acid, carboxylic ester, sulphonic acid, azido, tetrazolyl, hydroxy, acyloxy, amino, ureido, acylamino, heterocyclylamino, guanidino or acylureido group;

A_2 is an aromatic or [heteroaromatic group,] a substituted alkyl group, or a substituted dithietane;